

WisWAP Reporting Guide

Ref #	Code	Name	Measure Description	Details and Examples	Reporting/Tips
ENERGY CONSERVATION MEASURES (ECMs)					
ABD Air Sealing					
1	ABD005	Minor Infiltration – non blower door guided	Covers up to one hour of air sealing targeted at infiltration that affects customer comfort. This work is completed <u>only</u> when no blower door test may be completed.	Include the reason for no blower door test in the Comments box. The costs include the labor and materials required to do up to one hour of infiltration air sealing.	Includes materials such as caulk, silicone, one-part foam, weather-stripping, door sweeps, etc.
2	ABD007	WCEG Guided Sealing	Air sealing completed using the Wisconsin's Cost-Effective Guidelines (WCEG) utilizing a blower door. It is completed after non-guideline sealing is completed. The blower door test entered represents the test taken between non-guideline sealing and guideline sealing.	Enter Pre-CFM50 test results. The Pre-CFM50 test should be equal to or lower than the As-Is test. Note that unit of measure for WCEG costs is CFM50 Reduction. Quantity should always be the amount of the reduction from As-Is.	Examples of materials used are: replacement glass (cracked), caulk, silicone, one-part foam, weather-stripping, door sweeps, etc.
3	ABD010	Blower Door Setup	The cost of crews/contractors setting up the blower door. The blower door may be set-up numerous times to test the 1) As Is; 2) Pre-test; 3) Zone Pressure Diagnostics; and 4) Final blower door test.	Enter the Final CFM50 test results. The "Final CFM50" test is usually the lowest test number in the building. Note that unit of measure is Each. Quantity should always be a whole number.	No materials should be reported with this measure. Labor only. Do not include auditor or final inspection blower door set up.
4	ABD015	Non-Guideline Sealing	Includes the air sealing of bypasses, key junctures, and penetrations through the heating envelope. Non-guideline sealing may be completed with <u>or without</u> the aid of a blower door to identify the leaks. The focus is sealing big leaks. The work completed may be in conjunction with <u>or prior to</u> any insulation work.	When a blower door test is used, enter "As-Is CFM50" results. If no blower door test is used, enter 0 for "As-Is CFM50." Include reason for no blower door test in Comments section. Usually this is the highest blower door reading taken in the building as it is taken prior to any air sealing. Note that the unit of measure for non-guideline sealing costs is Job. Quantity should always be 1.	This is where the major air sealing materials are reported. Examples are: Two-part foam, rigid insulation board (Thermax), replacement glass (missing), caulk, silicone, one-part foam, etc. Include the cost of minor blown insulation used to repair damage from air sealing when attic insulation will not be included in the job.

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DIA Attic Insulation					
5	DIA	Attic Insulation	The cost of attic insulation and standard attic preparation for insulation. Attic preparation includes the proper boxing and damming of the access, electrical junction boxes and other hazards, vent stacks including chimneys, and the insulating and sealing of the attic access.	Include the cost of attic access insulation and air sealing of attic access with the insulation of the attic.	When installing additional insulation, all associated attic costs are reported with the attic insulation measure. This includes materials used to prepare the attic for the installation of insulation. Material examples are: Insulshield; wood boards; plywood.
6	DIA120	Attic Prep - No Attic Insulation	The costs of attic prep and attic access when no insulation is installed. Attic preparation includes the proper boxing and damming of the access, electrical junction boxes and other hazards, vent stacks including chimneys, and the insulating and sealing of the attic access.		
DIF Floor Insulation					
7	DIFL	Floor Insulation (MH)	Belly insulation installation.	Includes belly repairs unless the SIR is <1. Also includes board insulation installed under ducts and plumbing.	See Program Manual Appendix C.2 for MHEA modeling and measure options. Report repairs separately when modeled separately. See also ZRRS040
JBM Boiler Modifications					
8	JBM	Boiler Modifications	All required modifications that are not included with a basic boiler installation. These may occur with or without a boiler replacement.	Examples include outdoor reset, auto fill valves, distribution system work, and compression tanks.	
JHSM Heating System Modifications					
9	JHSM	Heating System Modifications	Includes all modifications needed aside from what would be included with basic furnace installation. These may occur with or without a furnace replacement.	Examples include ductwork modifications, insulating ducts and filters.	

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10	JHSM005	Clean and Tune	Includes primarily cleaning surfaces, adjusting burners, oxygen, diaphragms, gas pressure; it also includes work needed to increase the efficiency while reducing carbon monoxide as part of a Clean & Tune.	Do not include other modifications or repairs to the balance of the heating system (e.g. ductwork) with the clean and tune. Report those measures separately.	
11	JHSM015	Setback Thermostat	Limited to programmable thermostats only.	Conventional thermostats are reported in ZRHS030 Thermostat Replacement.	
12	JHSM020	Repair/Replace/Add Ductwork - First Floor	Includes ductwork that is installed to improve the heating system distribution.	Report the ductwork repair or replacement separately from the heating system in WisWAP. Includes filter covers and filter racks.	Ductwork completed primarily to address CAZ pressure is reported under Health & Safety as <i>XHHS030 Ducts repair or replace</i> .
13	JHSM025	Repair/Replace/Add Ductwork - Second Floor	Includes ductwork that is installed to improve the heating system distribution.	Report the ductwork separately from the heating system repair or replacement activity in WisWAP.	
14	JHSM035	Seal Ducts	Includes sealing ductwork to improve the heating system distribution.	Duct sealing should be limited to the following conditions: distribution is outside of the heating envelope, distribution leaks are causing excessive negative or positive pressure in the CAZ, and large leaks in the distribution system are causing heat to not reach the intended occupiable space.	
JHSR Heating System Replacement					
15	JHSR	Heating System Replacement	Heating systems reported under this category have been modeled as an ECM and have an SIR ≥ 1.0 . The exception is the conversion of electrical heating systems in 1-4 unit buildings. See JHSR060 for additional information.	Does not include replacements that are done due to Health and Safety problems. Items that are bid with the base installation cost can be included in this measure.	
16	JHSR060	Electric Conversion	All electric conversions that are not Health and Safety.	Use the Electric Fuel Switch calculator to generate the savings information.	

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HEALTH AND SAFETY MEASURES					
XHAR Ventilation					
17	XHAR005	62.2 Ventilation	Includes whole building mechanical ventilation running continuous or intermittently.	Also known as whole house or continuous.	The Diagnostic Workbook summary page will indicate when this measure is required and the job is eligible for use of DOE funds.
18	XHAR007	Local Exhaust Ventilation	An exhaust fan controlled with a switch or motion sensor.	Local exhaust or spot ventilation is turned on and off by the customer. It may include a timer to allow the fan to run for a certain period of time after use.	
19	XHAR009	Venting Existing Exhaust	Venting existing fans to the outside of the building.	Includes correcting incorrect venting.	
20	XHAR013	Make Up Air	Installation of makeup air for combustion safety.		
XHAP Health and Safety Appliance					
21	XHAP015	Appliance Repair	Gas leak repair only.	Cannot be used to repair high CO in cook stoves.	
XHAS Health and Safety Asbestos					
22	XHAS005	Attic with Vermiculite	The additional cost to follow procedures (O&M or certified supervisor and workers) when vermiculite insulation is present in the attic.	Model the additional asbestos costs with the related measure(s). Report the costs separately.	
23	XHAS010	Attic with Non-Vermiculite ACM	The additional cost to follow procedures (O&M or certified supervisor and workers) when suspect or confirmed ACM (non-vermiculite) was present in the attic.	Model the additional asbestos costs with the related measure(s). Report the costs separately.	
24	XHAS015	Sidewalls with Vermiculite	The additional cost to follow procedures (O&M or certified supervisor and workers) when vermiculite insulation was present in the sidewalls.	Model asbestos costs with the related measure(s). Report the costs separately.	
25	XHAS020	Sidewalls Slate/Stucco Siding	The additional cost to follow procedures for certified supervisor and workers to remove and re-install slate side or disturb stucco.	Model additional asbestos costs with the related measure(s). Report the costs separately.	
26	XHAS025	HVAC/Distribution	The additional cost to follow procedures (O&M or certified supervisor and workers) when suspect or confirmed ACM was present on HVAC/distribution.	Model additional asbestos costs with the related measure(s). Report the costs separately.	

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27	XHAS030	Miscellaneous ACM	The additional cost to follow procedures (O&M or certified supervisor and workers) when suspect or confirmed ACM (not vermiculite, slate, stucco, or HVAC/ distribution) was disturbed during weatherization.	Model additional asbestos costs with the related measure(s). Report the costs separately.	
XHAQ Health and Safety Air Quality					
28	XHAQ005	Worst Case Draft Test	Standardized test procedures that include an appliance draft test under worst case depressurization conditions.	Complete worst case depressurization tests on every dwelling with natural draft or assisted draft appliances. The Worst Case Draft (WCD) test includes both a worst case depressurization measurement of all of a structure's CAZs and a draft test of naturally drafting combustion appliances under those worst case conditions.	
29	XHAQ006	Worst Case Depressurization w/o Draft	Standardized test procedures that determine the depressurization of building. No draft test is taken. This test is important to determine the impact of ventilation on a building.	Complete worst case depressurization tests on every dwelling. Use this measure with sealed combustion appliances only.	With Category I natural draft and fan assisted draft appliances, this measure cannot be used. See Worst Case Draft Test.
30	XHAQ025	Dehumidifier New or Replace	Installation of a dehumidifier to address an existing moisture problem which cannot be addressed in any other way.	This is not a baseload measure.	
31	XHAQ045	Gas Leak Repair	Gas leak repair throughout the building.	Natural gas leaks on the utility side of the meter should be addressed by the utility or the building owner. Limited repair is allowed when the LP tank and distribution are owned by the low-income customer.	
XHEL Health and Safety Electrical					
32	XHEL015	Upgrade or Repair Electric	Includes necessary weatherization related electrical wiring installation and upgrades.	Includes separate circuit for the heating system when required, the installation of GFCI receptacles, wiring for condensate pumps, the proper bonding of the electrical systems to gas service, or repairs to correct unsafe wiring, including junction box covers in attics to be insulated.	The replacement of knob and tube wiring is reported as a repair. Charge service repair or upgrade to ZREL005. Charge knob and tube wiring replacement to ZREL015 (attic) or ZREL020 (walls).

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XHHS Health and Safety Heating System					
33	XHHS005	Boiler Replace	Limited to the replacement of <u>unsafe</u> boilers that do not have an SIR ≥ 1.0 and where the job has a cumulative SIR ≥ 1.0 .	Items that are bid with the base installation cost can be included in this measure.	Report heating system modifications separately.
34	XHHS010	Boiler Repair	Includes miscellaneous boiler repair not included in JBM Boiler Modifications category or XHHS015.	Including, but not limited to venting modifications, condensate pumps, and repairs to improve high CO level.	
35	XHHS015	Boiler Radiators, Repair or Replace	Includes repairs to address a safety problem.	Including, but not limited to distribution system leaks and repair or replacement of radiators.	
36	XHHS020	Furnace Replace	Limited to the replacement of <u>unsafe</u> heating systems that do not have an SIR ≥ 1.0 and where the job has a cumulative SIR ≥ 1.0 .	Items that are bid with the base installation cost can be included in this measure.	Report heating system modifications separately.
37	XHHS025	Furnace Repair	Includes repairs to address a safety problem.	Includes miscellaneous furnace repair such as condensate pump or plumbing, venting modifications, items not listed in JHSM Heating System modification category	
38	XHHS030	Ducts Repair or Replace	Includes duct repairs that are linked directly to health and safety measures.	Includes ductwork for health and safety heating system replacement or duct repair based on worst-case depressurization tests (Can include filter covers when natural draft appliances will remain in the CAZ.)	
39	XHHS035	Space Heater or Wall Furnace Replace	Limited to the replacement of <u>unsafe</u> space heaters that do not have an SIR ≥ 1.0 and where the job has a cumulative SIR ≥ 1.0 .	Items that are bid with the base installation cost can be included in this measure.	
40	XHHS040	Space Heater or Wall Furnace Repair	Includes repairs to address a safety problem, where no space heater replacement or other ECM heating system repair is planned.		
41	XHHS055	Electric Replace	Includes the replacement of electrical heating systems with electrical heating systems. This must be a health and safety measure based on unsafe conditions.	When possible convert electric heating systems to another fuel. Report conversions as an ECM, using JHSR060.	
42	XHHS060	Electric Repair	Includes the repair of an existing electrical heating system.		
XHHW Health and Safety Hot Water					
43	XHHW	Health and Safety Hot Water	Limited to <u>unsafe or leaking</u> water heater replacements that do not have an SIR ≥ 1.0 and where the job has a cumulative SIR ≥ 1.0 .	Items that are bid with the base installation cost can be included in this measure.	Report the cost of adding an outlet for PV water heater under Electric

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44	XHHW003	Electric to Electric Mobile Home .90	For the replacement of an unsafe mobile home electric water heater with an electric water heater of higher efficiency which is rated for mobile home installation.		
45	XHHW004	Electric to Electric .94	Includes the replacement of an unsafe electric water heater with an electric water heater of higher efficiency.		
46	XHHW005	Water Heater Replace	Includes the replacement of an unsafe or leaking water heater that doesn't fit into the other health and safety water heater replacement categories.		Can include the cost of electric circuit installation.
47	XHHW007	Gas power vent from conventional gas	Includes the conversion of an unsafe atmospheric gas water heater with a power vented gas water heater.		Can include the cost of electric circuit installation.
48	XHHW008	Gas power vent from electric	Includes the conversion of an unsafe electric water heater with a power vented gas water heater.	Verify this water heater was initially modeled as an ECM. Most electric to gas water heaters modeled as an ECM have an SIR ≥ 1.0 .	Can include the cost of electric circuit modifications.
49	XHHW010	Water Heater Repair	Includes the repair of an unsafe water heater.		
50	XHHW015	Plumbing Repair or Replace	Includes plumbing repair that is linked directly to an unsafe or leaking water heater.	Includes installing TPR valve and pipe on a water heater when tank insulation is installed.	
REPAIR MEASURES					
ZREL Repair Electric Service					
51	ZREL	Repair Electric Service		Measures in this category are meant to protect an ECM.	
52	ZREL005	Upgrade or Repair Electric Service	Upgrade or repair of the electric system that is directly linked to protecting or assuring the effectiveness of a weatherization measure.		
53	ZREL015	Knob and Tube Replace Attic	Replacement of knob and tube wiring to allow for the proper air sealing and the installation of attic insulation.	Model the wiring replacement with the attic insulation. If the measure and the job have an SIR ≥ 1.0 complete the measure.	
54	ZREL020	Knob and Tube Replace Walls	Replacement of knob and tube wiring to allow for the proper the installation of sidewall insulation.	Model the wiring replacement with the sidewall insulation. If the measure and the job have an SIR ≥ 1.0 complete the measure.	

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ZRHS Repair Heating System					
55	ZRHS030	Thermostat Replacement - Non-programmable	Installation of a non-programmable thermostat.	Non-programmable thermostats can only be installed as a repair.	Report programmable thermostats under JHSM015 Setback Thermostat.
56	ZRHS035	Fuel Switching	Costs related to fuel switching that are not part of the base bid price for installing a heating system.	May include oil tank capping or removal, gas lines, orifice replacement, ductwork in electric to gas conversions.	
ZRHW Repair Hot Water					
57	ZRHW	Repair Hot Water		Measures in this category are meant to protect and ECM.	
58	ZRHW005	Water Heater Repair	Repairs to the water heater that are not for health and safety, but protect ECMs.	This could include items such as a replacement sacrificial anode, controls, clean and tune, replacement elements.	
59	ZRHW010	Plumbing Repair or Replace	Repairs to the hot water plumbing system that are not for health and safety, but protect ECMs.	Examples might include resizing intake and output pipes, repairing leaks, repairing dripping tub spouts, and modifying distribution to accommodate related measures.	
ZRRS Repair Structure					
60	ZRRS	Repair Structure		Measures in this category are meant to protect an ECM.	
61	ZRRS005	Chimney	Repairs to the chimney to improve performance or structural integrity.		
62	ZRRS030	Door Replacement R5	Door replacement.	Includes field fabricated wood doors for basements.	
63	ZRRS035	Window Replacement Energy Star Rated	Includes window replacement that is a repair not an ECM.	Includes basement window replacements that are not Energy Star rated.	
64	ZRRS040	Repair Structure Other	Cost of repairs not covered by other measures.	Includes belly repairs that are modeled as Itemized Costs, cold water plumbing repairs that affect ECM's.	
65	ZRRS045	Ventilation - Soffit/Roof/Gable	Includes passive ventilation added to the attic via roof, gable end or soffit.	Ventilate the attic based on local code requirements or if unsealed bypasses remain in the attic.	